

Payload Project Protocol and Small Group Planning and Training Workshop Opportunities

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CYBER-PHYSICAL SIMULATION

- Payload Project Protocol
- Small Group Planning and Training Workshop Opportunities



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What is a Payload Project?

- Payload projects are an opportunity to attach additional research to existing experiments in the NHERI Lehigh facility.
- Some examples:
 - Adding instrumentations or sensors to an existing experimental setup
 - Adding a test component to an existing experimental setup
 - Add a device to an existing experimental setup



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Payload Project Protocol

- Check the NHERI Lehigh EF website to identify potential payload project opportunities.
- Contact project PI directly or contact NHERI Lehigh EF to determine feasibility of proposing a payload project.
- Payload research must be approved by existing project PI to payload.
- Technical details to discuss with PI and NHERI Lehigh EF include:
 1. Scope of work
 2. Test plan
 3. Schedule
 4. Required Equipment
 5. Instrumentation
 6. Data Management Plan
 7. Payload demolition plan
- Additional information on our [website](#)



Small Group Planning and Training Workshop Opportunities

- A small group research planning workshop is a one day event designed for individual researchers and small groups of 2 to 3 individuals
- The purpose of each workshop is to assist perspective facility users in determining the best way to engage with the NHERI Lehigh EF
- Provide a tour of the facility, information on the capabilities of the NHERI Lehigh EF, and explore opportunities to use the facility
- Assist in small-scope prototype experimental testing as needed for an NSF proposal



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Small Group Planning and Training Workshop Opportunities

- Information on NHERI Lehigh website under 'Outreach'

NHERI EXPERIMENTAL FACILITY

Facility - Protocols - Projects - Resources - Outreach - Contact

SMALL GROUP RESEARCH PLANNING WORKSHOP

The NHERI Lehigh Experimental Facility is accepting requests from faculty who are perspective users of the facility to attend a Small Group Research Planning Workshop. Each workshop can take place throughout the year at the NHERI Lehigh Experimental Facility. It is also possible to arrange a virtual workshop.

Each workshop is a one day event designed for individual researchers and small groups of 2 to 3 individuals. The purpose of each workshop is to assist perspective facility users in determining the best way to engage with the NHERI Lehigh Experimental Facility while developing NSF proposals. The focus of the workshops is to:

1. Assist perspective users to develop the experimental portion of their NSF proposal;
2. Provide researchers with information on the capabilities of the NHERI Lehigh Experimental Facility and how they can be utilized to advance natural hazard engineering research that is complemented with hands-on activities;
3. Conduct a tour of the facility and view the types of testing (e.g., hybrid simulation, quasi-static testing, dynamic testing, multi-directional shake table and shake table-hybrid simulation testing) that can be performed using the large scale multi-directional natural hazards simulation resources and the Real-time Cyber-Physical Structural Systems Testing Laboratory and its multi-directional shake table;
4. Discuss the NHERI Science Plan and recent advancements achieved by the NHERI Lehigh Experimental Facility in experimental and numerical simulation;
5. Assist perspective users to explore opportunities to utilize the NHERI Lehigh Experimental Facility for NSF projects, including but not limited to natural hazards engineering projects in wind, earthquakes, or storm surge that focus on response modification devices (e.g., passive dampers, smart semi-active dampers, isolation systems), innovative structural systems (e.g., self-centering systems); effects of soil-foundation-structural interaction; static or dynamic characterization testing of components, sub-assemblages, and systems for computational model development and validation, and structural health monitoring.

Small Group Research Planning Workshop Scheduling Request

There is no registration fee. Financial support is limited. Please provide the information requested below. The NHERI Lehigh Experimental Facility staff will contact you upon receiving your request to schedule a workshop.

Name (required)

Email (required)

Affiliation (required)

Title (required)

Phone Number (required)

Number of Attendees (required)

The number of attendees, including yourself (maximum of 3).

Attendee Details (required)

Provide the name, affiliation, title, and email of each attendee.

Proposed Dates (required)

Requesting a small group planning workshop

Information Required:

- Name
- Email
- Affiliation
- Title
- Phone Number
- Number of Attendees
- Attendee Details
- Proposed Dates
- Research Interests
- Expected Outcome from Workshop

